



Portland Harbor Superfund Site Update

November 2009

Portland Harbor Superfund Site was added to the EPA National Priorities List in December 2000. More than a century of industrial use left river sediments contaminated with many different hazardous substances, including polychlorinated biphenyls (PCBs), heavy metals like mercury, polynuclear aromatic hydrocarbons (PAHs), dioxin/furans and pesticides. The site is located on the lower Willamette River. The area between downtown Portland, Oregon and the mouth of the Columbia Slough is being studied, and the final Superfund site boundaries will be established in the Record of Decision based on EPA's analysis of the nature and extent of contamination.

Remedial Investigation report completed: The draft Remedial Investigation (RI) Report, was submitted to EPA by the Lower Willamette Group on October 27, 2009. The RI report presents a comprehensive look at the nature and extent of contamination in surface and subsurface sediment, surface water, groundwater, and stormwater in an 11-mile stretch of the lower Willamette River. It also describes the physical dynamics of the river, current and historical uses of the river, and fish and wildlife living in and adjacent to the river.

Two important sections of the remedial investigation report are the human health and ecological risk assessments, which present the risks associated with exposure to the contamination at the Portland Harbor Superfund Site.

A key finding of the report is that the most significant and widespread risks are from exposure to contamination from four chemical groups – Polychlorinated biphenyls, (PCBs), dioxins and furans. DDT, and polycyclic aromatic hydrocarbons (PAHs). Ingestion of resident fish poses the greatest risk of adverse health effects for humans. However, many other localized problems exist.

The RI report provides the base of knowledge needed to complete a Portland Harbor Feasibility Study that will develop and evaluate viable cleanup options. After the FS is completed, EPA will formulate a Proposed Plan for public comment and then issue a Record of Decision for the site.

The draft RI report is the outcome of a thorough eight years and approximately \$75 million (LWG estimate) undertaking to study the Portland Harbor Superfund Site.

EPA will carefully scrutinize this report over the next several months for accuracy and completeness, and determine whether it meets the agency's legal, policy and technical objectives.

The public is welcome to review this document concurrently with EPA and provide us with feedback. Key sections of the report are posted on the Portland Harbor website, a full copy is located at the St. Johns Library and a DVD copy is available by request

Feasibility Study: Most of the work for the rest of 2009 and beyond is related to the Feasibility Study (FS). The FS uses information from the RI and risk assessment to develop sediment cleanup levels, identify areas that may require cleanup, and develop and screen cleanup options for Portland Harbor. Assessing contaminant mobility and identifying debris that could impede cleanup work are types of information collected to support the FS.

Work has begun to gather and analyze chemical, physical, land use and river use information that may influence cleanup methods for the site. The FS uses models to estimate things that can not be measured directly such as the relationship between sediment and tissue and long-term trends in chemical concentrations. The food web model and the fate and transport model are two key tools being used to develop cleanup levels and estimate changes in sediment and tissue concentrations. Key information in the Feasibility Study will include:

- Remedial Action Objectives and Preliminary Remediation Goals: The risk assessment will provide the basis for refining the remedial action objectives and developing preliminary remediation goals (PRGs). A range of PRGs will be developed for several human health and ecological receptors, such as human health fish consumption and direct contact with sediments, and risks to fish, wildlife and benthic organisms.
- Areas of Potential Concern (AOPC) are being identified based on information from the results of the baseline ecological and human health risk assessments, preliminary remediation goals, modeling results and the spatial distribution of contamination.
- Sediment Management Areas (SMA): The AOPCs will be further refined into specific locations where cleanup actions are needed and then remedial alternatives will be developed and evaluated for each SMA.

Searching for Potentially Responsible Parties: In July 2009, EPA sent notice letters to 8 potentially responsible parties (PRP's) explaining their potential liability for response costs and providing contact information for a group of parties convening a mediated allocation process. This letter was the initial notice for these 8 parties. Since the site was listed, 78 parties have received notice letters.

In 2008, EPA sent 250 information requests to people and businesses with a current or past connection to Portland Harbor, seeking information about releases of hazardous substances or other information about activities that may have contributed to contamination in the river. EPA is currently reviewing this information, and will issue additional notice letters and information requests in 2009 and beyond as part of its ongoing search and identification of parties that may have responsibility for paying for the cleanup.

Early Actions: A partial cleanup was completed at Port of Portland Terminal 4, Slip 3 and Wheeler Bay in 2008. Contaminated sediment was dredged and capped, riverbank was stabilized and habitat was enhanced. The final phase of the project, converting Slip 1 to a Confined Disposal Facility, was delayed in order to include information from the harbor wide Feasibility Study. The removal action completion report is available on the EPA website.

Also in 2008, partial cleanup of nearshore sediments took place at the BP-Arco bulk fuel facility. This work was performed in conjunction with facility improvements to the seawall and took place with oversight by the Oregon Department of Environmental Quality.

Work planning continues for cleanup of highly contaminated sediments at the Arkema site. EPA and Legacy Site Services, LLC continue to work through a series of disputes related to the scope of the EE/CA and cleanup.

In September 2009, EPA and NW Natural finalized an agreement that will start the wheels rolling for an additional early action cleanup offshore of Gasco and Siltronic. A work plan will establish the timeline for gathering data and completing an Engineering Evaluation and Cost Analysis that will present action alternatives. A course of action will be selected after public review and comment.

Triangle Park: In spring 2009, EPA finalized a consent decree that enabled the University of Portland to purchase Triangle Park. The settlement between EPA and Triangle Park LLC and another settlement between EPA and the University is providing funding for source control, cleanup and redevelopment of the Triangle Park uplands, so that it can return to productive reuse as athletic fields and a public waterfront trail.

US Moorings: EPA is working with the US Army Corps of Engineers to assess contamination and cleanup needs at this facility located adjacent to GASCO. Data collected as part of this investigation will be added to the Portland Harbor database.

Upland Source Control: The Oregon Department of Environmental Quality is the lead agency for the effort to clean up upland sites along the shore of the Willamette River. Most of the work is done through voluntary agreements with dozens of industries and property owners. Upland source control work is essential in order to avoid recontamination of cleaned up river sediments. For more information, check out the DEQ Portland Harbor web site at: <http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor> (Marcia Danab, DEQ Public Information, danab.marcia@deq.state.or.us)

Natural Resource Damage Assessments: Trustees from state agencies, federal agencies and tribes are moving forward with studies to determine the injury to natural resources in Portland Harbor and develop a restoration plan. For additional information, visit the NOAA website: <http://www.darrp.noaa.gov/northwest/portharbor/injury.html> (Erin Madden, Trustee Council Chair, 503-753-1310, erin.madden@gmail.com)

Public Health: The Oregon Environmental Health Assessment Program (EHAP) is finishing up a public health assessment for recreational users of Portland Harbor and will publish these findings in late 2009. <http://www.oregon.gov/DHS/ph/ehap/phsite.shtml> (Karen Bishop, EHAP 971-673-1219, karen.bishop@state.or.us)

How the work gets done: Contractors for the Lower Willamette Group (LWG), a group of ten potentially responsible parties who under a legal agreement with EPA, collect and analyze data according to EPA-approved work plans, and prepare reports.

Going from data to decision: Draft documents, such as the Remedial Investigation and Feasibility Study are delivered to EPA by the LWG according to a negotiated schedule. The information is reviewed by EPA and intergovernmental partners for accuracy, completeness, and compliance with approved work plans and agency regulations and guidelines. These documents are also available for review by the public. EPA and the LWG will host community workshops to share information on key documents.

Proposed Plan: Based on the FS, EPA will write a Proposed Plan, which summarizes the cleanup alternatives and proposes a preferred course of action. Public comments will be solicited for the Proposed Plan. Your input to the proposed plan will be very important in selecting the best course of action.

From Plan to Cleanup: After carefully considering public input on the Proposed Plan, EPA will issue a Record of Decision (ROD) for Portland Harbor. After the decision, EPA negotiates with PRPs to design and construct the selected remedy.

For More Information about EPA Portland Harbor topics:

Visit the Portland Harbor website: <http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/ptldharbor>

Contact: Judy Smith, EPA Community Involvement Coordinator, 503-326-6994,
smith.judy@epa.gov

Subscribe to the e-mail distribution list by sending a blank e-mail to:
EPA-NWOregon-subscribe@lists.epa.gov or contacting Judy Smith

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